

WILKINSON

Plows, "Climax" Ensilage
and Straw Cutters, and

IRON AGE

Farm, Garden and Orchard
Implements

Canadian Factory
Established 1851

THE BATEMAN-WILKINSON CO., Limited
TORONTO, ONTARIO

American Factory
Established 1881

BATEMAN MFG CO.
GLENLOCH, NEW JERSEY, U.S.A.

Tools are carried in stock at centers
of distribution.

Largest stocks of suitable tools for
each industry are carried by the
best class of implement and
hardware dealers in the
country.



Climax Filling a
50-Ton Canadian Silo

If not handled by your local dealer, write us for nearest
address where tools can be seen and explained.

WILKINSON

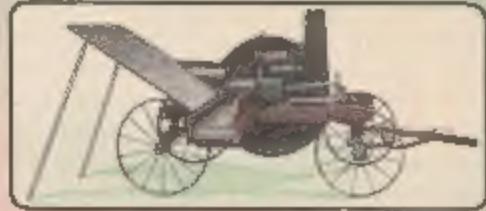
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TORONTO

Climax Pneumatic
Combination
Ensilage and Straw Cutter

The Only Canadian Machine
That Can Do Both Equally Well

A farm well tilled, a wife well willed,
a silo well filled, make happiness and prosperity



World's Largest
A. & W. Bateman Mfg. Co. Collection

WILKINSON

Pneumatic Ensilage and Straw Cutters

EVERY farmer who believes in silos and getting them filled in the best way possible, wants a machine that will not give him trouble, one that will automatically handle all of the corn or straw he can feed to it without clogging, one that cuts the feed as he wants it and is easily kept sharpened, one that blows the cut feed in the same operation as high as necessary and the one that takes the least power in proportion to the work done.

A machine's best advertisement is in its satisfied users. Go into **any** barnyard where the Climax is working and ask the operator what he thinks of it. Now it is quite natural for a man to speak well of a machine that he owns because it is his, but please understand that threshers and farmers who use Climax cutters don't have time to fool with machines that are not right—they soon get rid of them.

We know many men who have used the Climax twelve or fourteen years—they had used other makes before but none others since. Some have tried other machines on a written guaranty that they would do more and better work than the Climax but the other machines have never, in any instance, lived up to such guaranty and they have been promptly discarded.

The Climax will cut and blow in the right way, green corn and dry straw or hay and put it where you want it put. It is built to wear and to work well in youth and old age.

You have a choice of two styles to suit **your** particular needs and each can be furnished mounted or standard. Also, the B machine can be furnished with 2 knives if desired.

Feed, expansion, knives, fans, casings and pipe are the best that can be had. Safety for the operator is provided for in a natural way. Adjustments can be made to cut the feed as fine as you wish. Saves power. Saves money, as it does a better job at less cost per day and costs little to keep in repair. Saves time—is quickly set up, knives are easily sharpened and Climax A, for instance, will cut a large load of corn in four minutes easily.

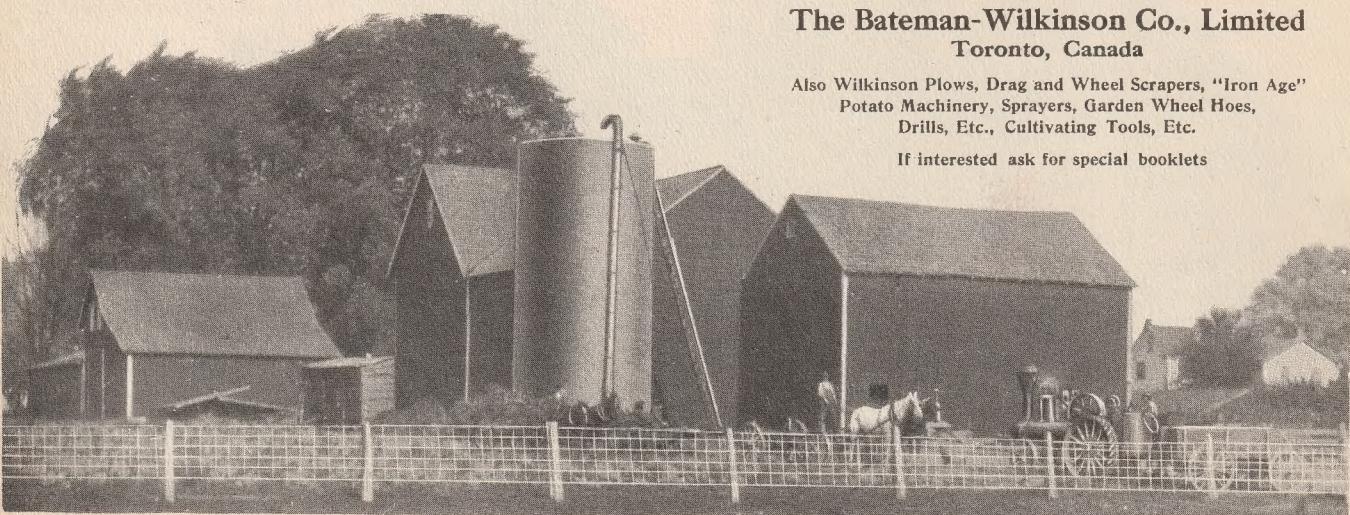
Ensilage is the most valuable and the most economical feed. When you come to put it in the silo, you like to see a smooth, perfect job and that is what we can guarantee with the Climax. Read the experiences of others on page 8—they have no axes to grind, no favors to ask, but tell what they know to be so.

Where Horse Power (H. P.) is referred to in the book, steam is taken as the basis for figures.

The Bateman-Wilkinson Co., Limited
Toronto, Canada

Also Wilkinson Plows, Drag and Wheel Scrapers, "Iron Age"
Potato Machinery, Sprayers, Garden Wheel Hoes,
Drills, Etc., Cultivating Tools, Etc.

If interested ask for special booklets



Pneumatic Ensilage and Straw

Why Pneumatic

A pipe can be put in place in one-tenth the time required for carriers. With the Climax A you can easily set up and start cutting within 15 minutes. There is no dust, no breaking of slats with consequent delays. The operator can put through very much more corn or straw than with the old-fashioned carrier machine. In windy weather, none of the fodder can be blown away as on the open carrier. Both cutting and elevating are done at one operation, saving power.

Ensilage and Straw

The Climax handles **equally well, green corn or dry straw**, the only combination machine made in Canada that will do both kinds of work satisfactorily, and continue to do so.

Complete Outfit

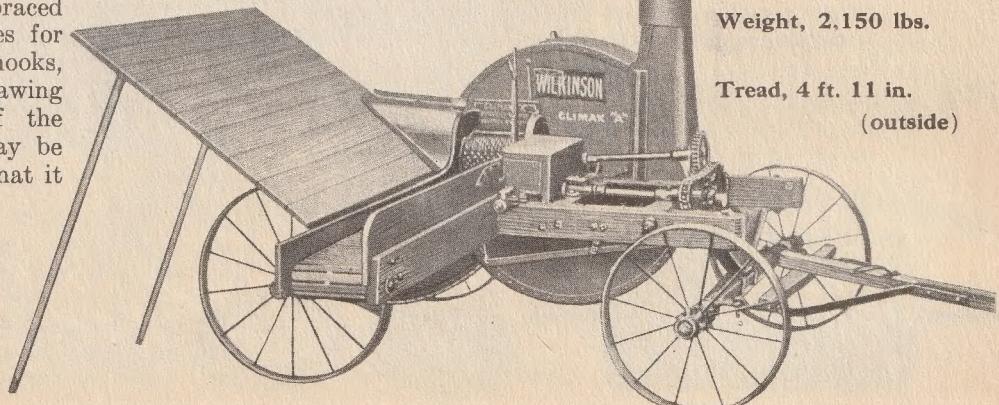
On this page we present the machine, ready for business with pipe and table in position, and mounted on a steel truck for ready transportation. A tool box goes with each machine with all necessary tools. Also, a pipe rack for holding pipe in transportation.

Pipe

Made of galvanized iron, 8 inches in diameter, machine pressed and riveted; elbows are supplied for turning the fodder into the silo or mow. **Twenty-six** feet of straight pipe (not including reducer) are sent regularly with each machine, but the machine has **sufficient capacity to elevate green corn into the highest silo** or to blow dry straw 60 feet, up into and across the barn. Extra lengths are 2, 4, 8 and 12 feet and should be ordered as such. See inside back cover for manner of loading pipe for transportation.

Running Gear

heavy cast brackets, coupled short, 5 feet 9 inches apart; steel wheels with staggered spokes; 3 inch tires, diameter, 30 inch front and 34 inch rear, and a well braced pole, the steel braces for which serve also as hooks, attached to and drawing from the center of the axle. The pole may be easily detached so that it won't be in the way and for convenience in storing. This makes the best truck for cutters offered to the Canadian trade.



Cutter

Climax A Mounted

Full rigged, ready for cutting

Supplied with necessary pipe and elbows, pipe rack, tools, set of extra knives, extra cutting plate, oiler, etc.

Friction drive

Reverses instantly

Steel slat feed deck or apron

8 in. automatic adjustment feed opening

Straight, flat, thin knives, easy to sharpen

Steel fans cast into wheel

Steel fan case

Weight, 2,150 lbs.

Tread, 4 ft. 11 in.
(outside)

Pneumatic Ensilage and Straw Cutter

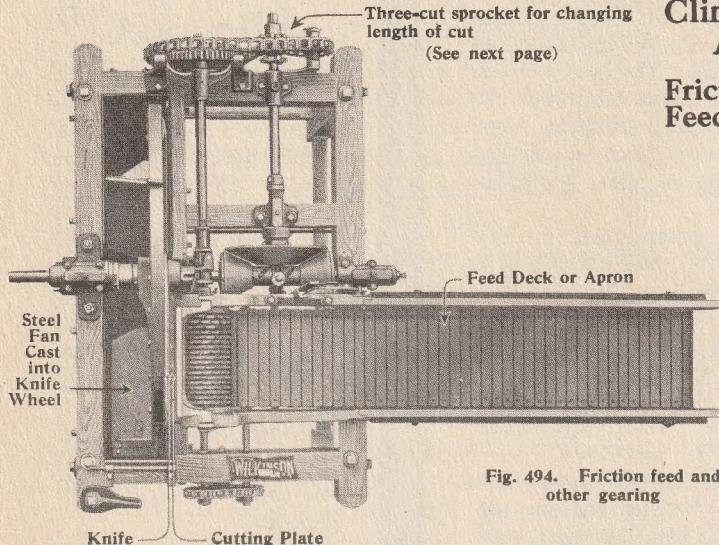


Fig. 494. Friction feed and other gearing

Climax A Friction Feed

The most important parts of a cutter are the feed, and the cutting and blowing sections.

For about fifteen years, we have used successfully friction wheels for driving the feed. They are perfectly adapted to the work because the operator frequently has to reverse instantly and he can do this without danger of breakage. These feed wheels (Fig. 494) are made of leather board and run smoothly without unnecessary friction, as the natural end thrust is taken up by ball bearings. The friction wheels are built to wear a long time—we have had some of them in constant use by threshers for twelve seasons. The driven friction gear is connected to the feed shafts by heavy malleable chain and gearing. There is thorough provision for oiling.

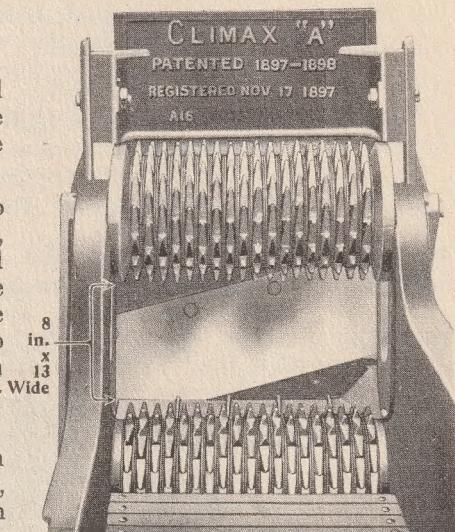


Fig. 495. Feed opening—no clogging possible

Bearings The bearings are babbitted with the best material and have ample bearing surface—main box, $7\frac{3}{4}$ inches, centre box, 3 inches and cup, front box, 6 inch bearing. All are adjustable.

Feed Run The apron or deck is made of steel slats, riveted to strong malleable chain. It is set low in the feed run, meeting the bottom feed roll at about the center line and securing pressure from this roll as well as the top. The apron runs smoothly and evenly, close to the rolls. The feed table is set at the right angle to feed naturally to the run and has a steel shield which keeps the stalks from catching—this enables the operator to feed by merely straightening the fodder. The run is five feet long.

Feed Rolls Each roll is $6\frac{1}{2}$ inches in diameter—the upper roll has an automatic rise or expansion (Fig. 495) of about 8 inches, or as much of this opening as is needed, and a clear width of 13 inches—a cutting space of about 104 inches, enough to absolutely prevent clogging. The opening just about fits a bundle of fodder, the toothed rolls hold it firmly

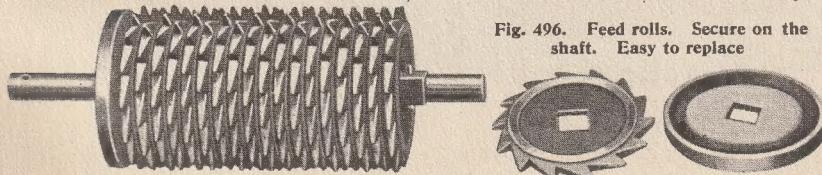


Fig. 496. Feed rolls. Secure on the shaft. Easy to replace

and it goes to the knives in compact form, a solid cutting surface. Bundles will go through as fast as thrown on the apron, without cutting bands or spreading. This means increased capacity and reduces the labor of feeding. Fig. 496 shows

Pneumatic Ensilage and Straw Cutter

how the rolls are made—a number of small cast iron sections, with a pair of solid ends, slipped onto a square shaft and held closely together by a pin. This makes a very effective feed and the sections are easily and cheaply replaced when necessary.

Length of Cut

One cog wheel gives three lengths of cut— $\frac{1}{2}$, $\frac{3}{4}$ or 1 inch—or special sprocket and gear can be supplied for special short or long cuts in straw or hay, if necessary.

The Reverse Lever

"Safety first" is a widely discussed problem and we have it—we place the reverse lever between the operator and the feed rolls. When you are feeding, the lever pulls toward you, and to reverse you have only to shove against it. If the operator should carelessly get caught in the feed rolls, he would naturally lean against the lever (Fig. 497) and release himself. The

If the operator should get caught, his body falls naturally against the lever which releases automatically



Fig.
497

one lever controls both rolls and the deck or apron, at the same time, that is, when you draw the lever to you, the deck revolves carrying the feed to the rolls, which take it to the knives.

When you throw the lever from you so that the plunger falls in the notch the rolls and deck cease to revolve, yet the flywheel continues and, in case you want to reverse the rolls and the deck, the lever is pushed beyond the notch.

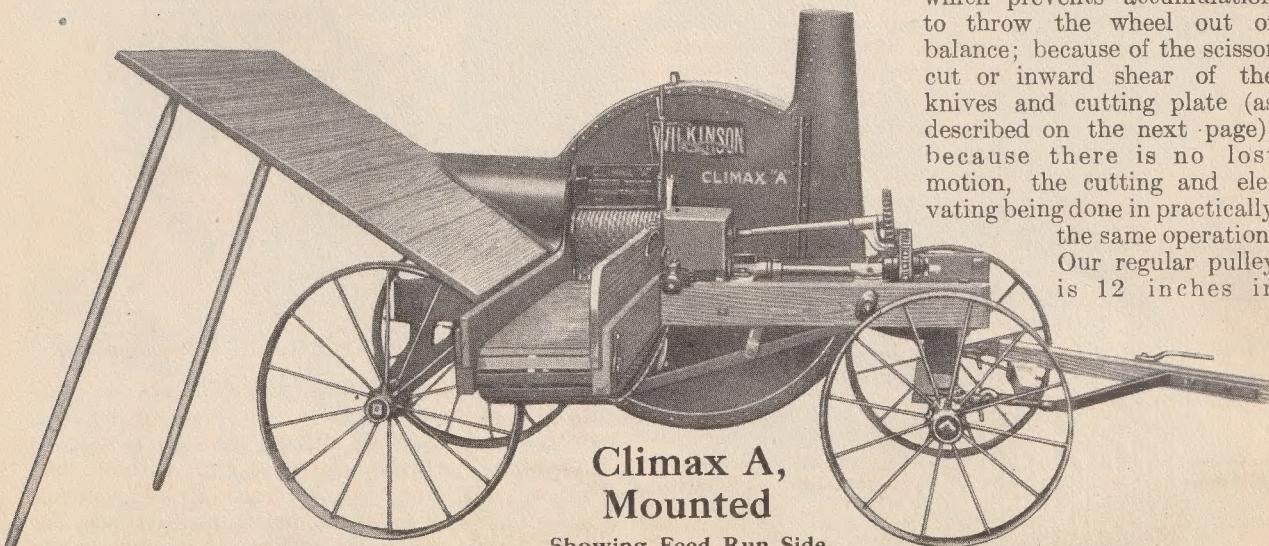
Power and Speed

A 12 H. P. (steam) engine will operate the Climax A machine satisfactorily without undue strain on engine or machine. The

best results are obtained by driving the knife wheel at from 700 to 900 revolutions per minute. The machine can be belted from either end. Only one brace is needed when the machine is running.

Climax A requires less power than **any other makes of machines for which similar capacity is claimed**. Why? Because of the compact cutting surface, which is also the reason for this machine's great success in handling dry fodder; because of the webbed wheel

which prevents accumulation to throw the wheel out of balance; because of the scissor cut or inward shear of the knives and cutting plate (as described on the next page); because there is no lost motion, the cutting and elevating being done in practically the same operation. Our regular pulley is 12 inches in



Showing Feed Run Side.

Pneumatic Ensilage and Straw Cutter

diameter and has 7 inch face. 10, 14 or 16 inch pulleys can be furnished at the same price.

The Knife

The amount of fodder that can be cut depends very largely on the condition of the knife. A straight knife with a good bevel is most easily sharpened and because it is kept

in shape easily, the machine takes less power and does better work.

Our knives (Figs. 498, 499, 500, page 4) are straight, perfectly flat and very thin ($\frac{1}{16}$ inch), a

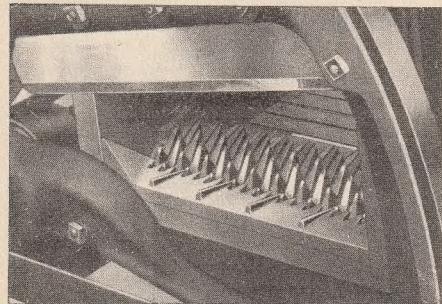
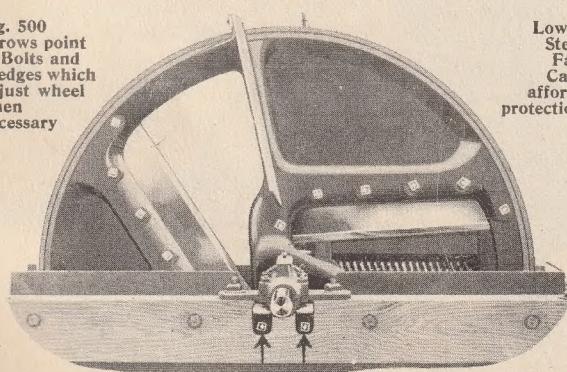


Fig. 498. Showing Knife and Cutting Plate

decided advantage in cutting, of course; made of Jessop's best quality of knife steel, high carbon, crucible, oil tempered, and they hold their edge a long time. They are 21 inches long on the cutting edge, and 5 inches wide.

They are bolted to the wheel solid—they cannot break, causing further trouble and expense. No set screws are used; instead we have an expanding set collar so that all knives are set in one operation. This is the simplest, quickest, safest and most accurate way and also strengthens the knives materially. Our knives are set to begin cutting from the outside toward the axle (Fig. 495, page 2)—fodder or straw that is pushed ahead of the knife toward the center is finally cut where the cutting power is

Fig. 500
Arrows point
to Bolts and
Wedges which
adjust wheel
when
necessary



Lower
Steel
Fan
Case
affords
protection

greatest (as in a pair of shears where the cutting is easiest near the rivet).

Cutting Plate

The knife and the cutting plate (Fig. 498, also see cut at bottom of next page) make an inward shear cut with the cutting plate stationary (take the shears again, for example—the lower blade is practically stationary). The plate is made of specially chilled iron, strong and tough, and keeping a square edge. It is inexpensive to replace and easily put in.

Knife Wheel

A very heavy, cast wheel (Fig. 499), with a steel band shrunk on, giving additional weight and strength.

It is filled in solid from back of knife to the

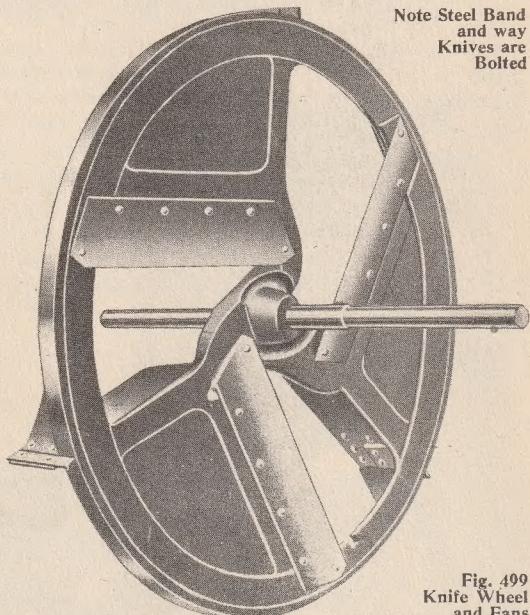


Fig. 499
Knife Wheel
and Fans

fan arm or what is known as a webbed wheel—this keeps cut fodder from lodging in the arms of the wheel, dropping into the lower fan case and clogging it and reduces friction to the minimum. Also, the added weight, in the right places, gives better balance and greater momentum to the wheel.

Fig. 500 shows an adjustment for the wheel which is of real value and which is not generally understood. Suppose you have run the machine belted up at either end for

Pneumatic Ensilage and Straw Cutter

considerable time—you will find that one point of the knife will cut away from the cutting plate and the other end of the knife will "hug." The wedges shown in the cut are put in so you can counteract this tendency by loosening the nuts on boxings of main shaft and draw or force in each wedge as needed. The operator who knows the value of these wedges will require less power than the one who doesn't. The hub is bell shaped over which a bell shaped boxing projects, so that no string can possibly wind on the shaft. The steel shaft is $1\frac{3}{4}$ inch, polished. It is put in place by hydraulic pressure and cannot get loose. Note bolting of knives, two bolts being nearly in line with cutting edge of knife, to hold it rigid.

They are made of $\frac{7}{32}$ inch tough steel and cast into the wheel (Fig. 499) halfway between each knife—cannot get loose. As the knives cut the fodder, the fans blow it, in one operation, through the pipe into the silo or mow, at the same time drawing all dust into the machine.

The Fans

Fan Case

It is made in two parts of heavy, toughened pressed steel. The lower section is constructed so that the side, in one solid piece, covers the inside of the wood frame (Fig. 500) and protects it from wear; also, the bottom and side pieces are closely riveted and present a smooth surface inside,

on which nothing can lodge to interfere with the fans or on which fodder could catch. The upper section is hinged so that the operator can get to the knives easily and, when machine is operating, is securely fastened by bolts through angle steel uprights attached to the discharge pipe.

Discharge Pipe

Frame

Simple Construction

Capacity

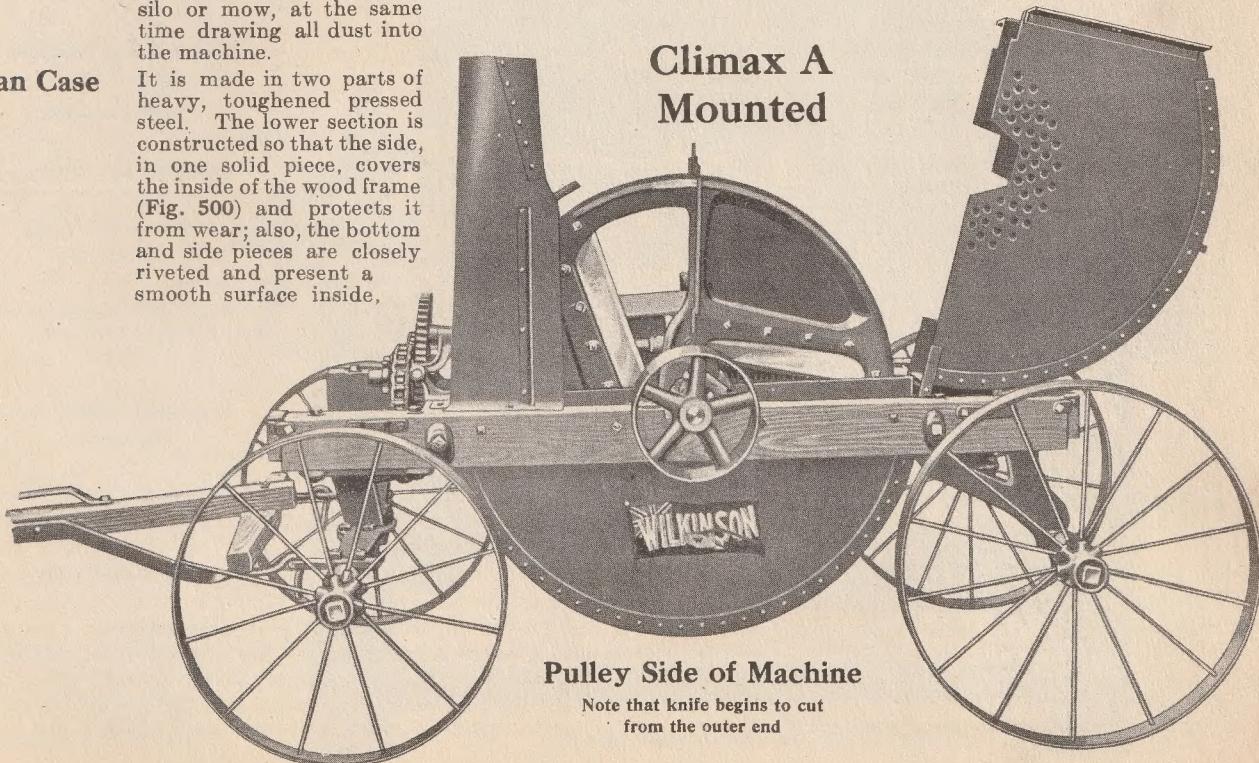
It is made of the same heavy pressed steel as in the fan case with which it is connected. The discharge pipe and upper and lower fan cases may be purchased separately, as repairs, at very reasonable prices.

It is made of heavy, thoroughly seasoned hardwood, well braced, mortised and bolted. Stands well the wear and tear of many years' hard, racking work.

The Climax has less parts than any other machine on the market. Less parts to keep in order, less complication and less expense in making repairs.

Limited only by the amount that can be got to the machine and by the power used. The normal capacity is 15 to 20 tons of green corn or 3 to 5 tons of hay or straw per hour.

Climax A Mounted



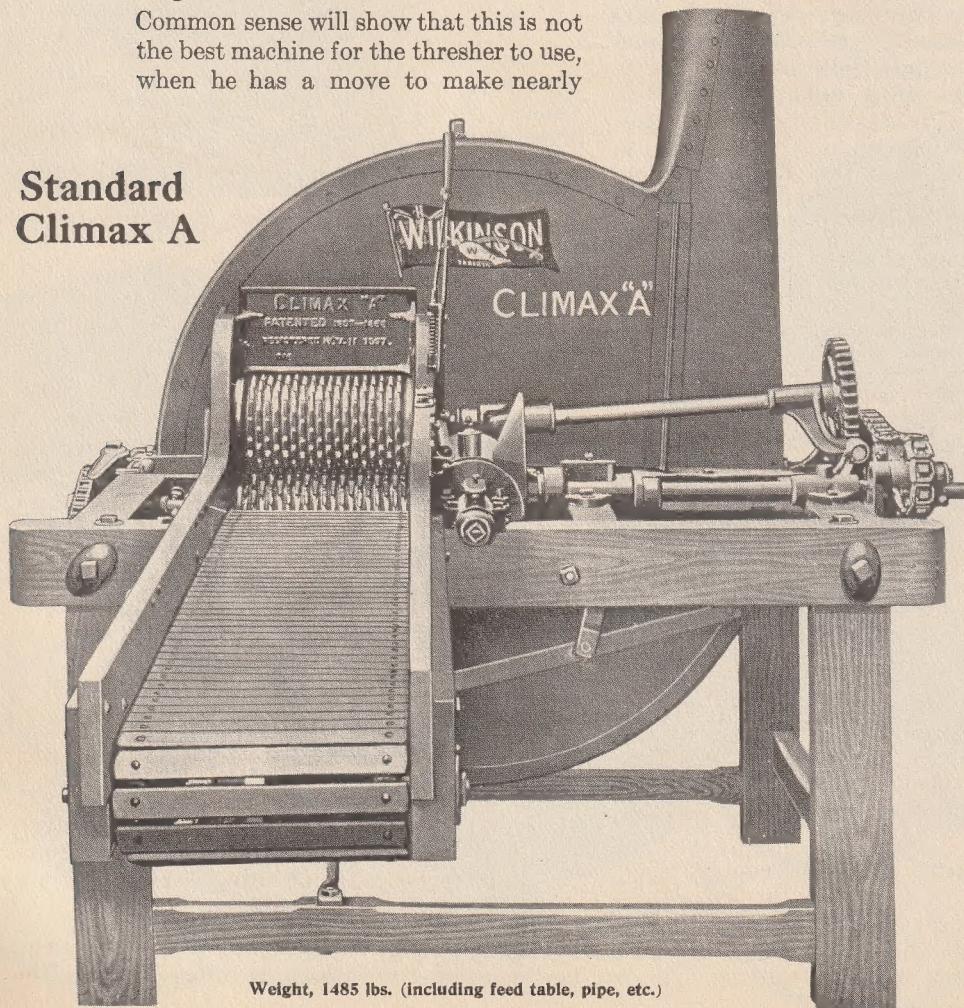
Pneumatic Ensilage and Straw Cutter

Standard Climax A

The men interested particularly in the Standard Climax A are those who have platform trucks on which they can mount a machine, or the large farmer who either has enough work himself or can get enough from a neighbor or two, to warrant a machine with this capacity, or the syndicate that wishes to own their machine and does not have very long moves to make.

Common sense will show that this is not the best machine for the thresher to use, when he has a move to make nearly

Standard Climax A



Weight, 1485 lbs. (including feed table, pipe, etc.)

every day during the season, even though it does have the same cutting capacity as the Mounted Climax A.

The Standard Climax A is built exactly like the Mounted A in all working parts—only the framework is different—strong, well-braced legs are put on in place of the transporting truck.

Extras Same as on the Mounted A, except the pipe rack, which is not furnished.

Friction drive reverses instantly

Steel slat deck

13 x 8 feed opening

No clogging

Straight, flat, thin knife

Shear cut from outer end

Heavy, steel banded, 3 knife wheel with steel fans cast in

Cuts and blows in one operation

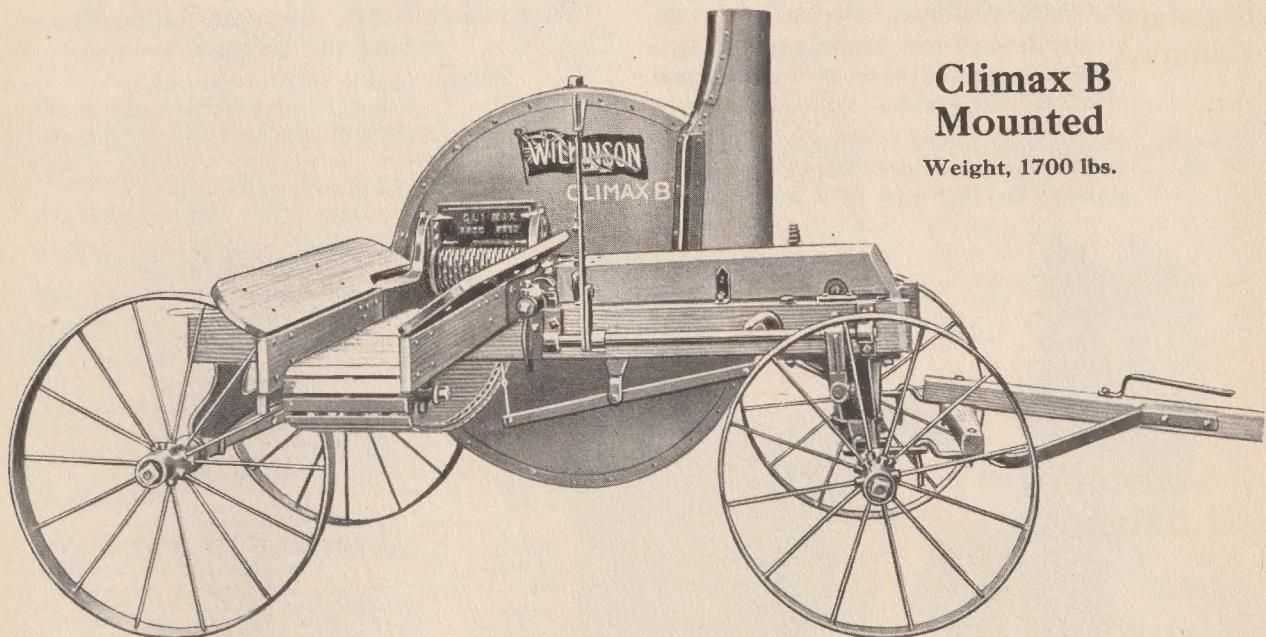
Steel fan case, no obstructions, perfect protection to frame

Strong frame

Equipment:

- Necessary pipe and elbows
- Set of extra knives
- Extra cutting plate
- Tools, oiler, etc.
- Feed table and supports

Pneumatic Ensilage and Straw Cutter



Climax B Mounted

Weight, 1700 lbs.

Climax B 3 Knife

This machine is built especially for the farmer, not the thresher—for places where the larger capacity is not required and the larger power is not available.

It is built a little lighter than the A all through, as it is not intended for the heavy or custom work and strain which the A machine is called upon to perform in the corn season, when the thresher wants to crowd as much stuff through as possible.

The Feed

We use the belt and gear drive on this machine (Fig. 501, page 8)—it is strong, well fitted and powerful for a small machine of this kind. It can be reversed instantly. Has been used successfully during several seasons.

By using a belt to drive the counter shaft on cone pulleys, we cut out the probability of stripping gears when changing for another cut. On this machine you can change the cut without stopping.

Power and Speed

An 8 H. P. engine should be used in dry fodder and 10 H. P. in corn. The best results are obtained by driving at from 600 to 800 revolutions per minute. See below, also for two knife machine.

Pipe

Made of heavy galvanized iron, machine pressed and riveted, 7 inches in diameter. Elbows are furnished to turn the fodder into the silo or mow.

Other Specifi- cations

Main Shaft, $1\frac{1}{2}$ inch, running in three wide bearings.

Knives are $4\frac{1}{2}$ inches wide by 19 long on the cutting edge.

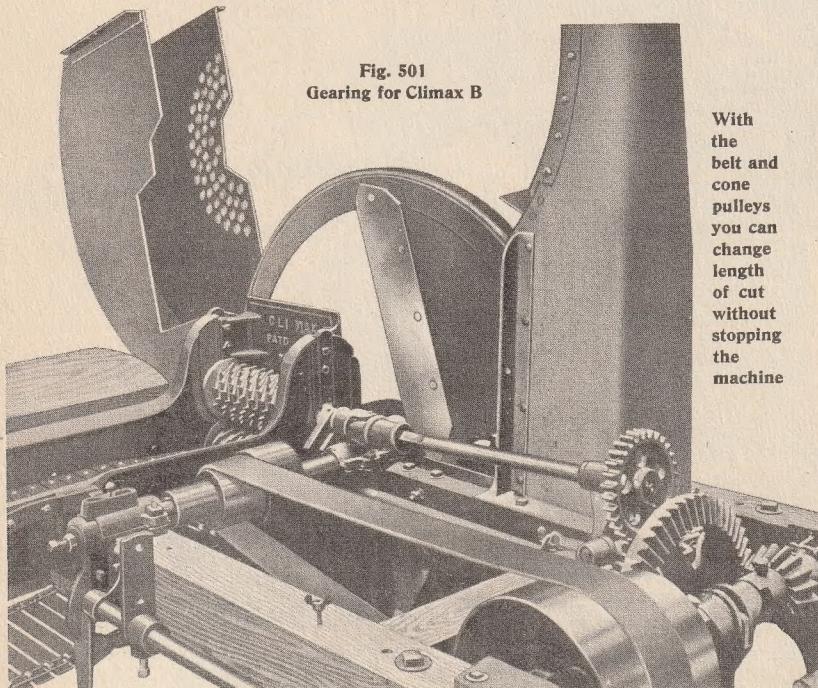
Rolls, $5\frac{1}{2}$ inches in diameter, throat 12 inches wide and the upper roll raises 6 inches automatically, giving 72 inches cutting space.

Pulley is 12 inch, but 10, 14 or 16 inch can be furnished. In other respects the B

Pneumatic Ensilage and Straw Cutter

machine is like the A. Same truck is used. It is furnished also, as Standard B, with wooden legs, in place of the running gear. Weight, 1270 pounds.

2 Knife B Where less power is required, we furnish knife wheel with two knives instead of three. In this case, a 6 H. P. engine



will furnish enough power for use in dry fodder and 8 H. P. in corn.

Capacity For the 3 knife machine, 10 to 12 tons of green corn per hour.

For the 2 knife machine, 8 to 10 tons.

CLIMAX B AND 8 H. P. GASOLENE ENGINE

SOMERVILLE, Ont., June 18, 1914.

The Climax B Ensilage and Straw Cutter that I purchased from you last Fall, gave us the best of satisfaction, and without any trouble. With an 8 horsepower gasoline engine, we filled silos as high as 24 feet without ever bunging the pipes and for cutting straw and hay, it is A No. 1.

J. E. CULHAM.

These Men Know Because They Have Used the Climax

FILLED OVER 80 SILOS IN TWO YEARS

R. R. No. 6, LONDON, ONT., June 15, 1914.
The Climax A Ensilage Cutter that I purchased two years ago has given entire satisfaction—I have filled over 80 silos besides cutting a large quantity of dry fodder. So far I have never used more than 12 horsepower (steam) and had no trouble whatever in filling the highest silo. If I were buying again, I would have no other.

WM. A. KNAPTON.

NO TROUBLE IN WET CORN OR EVEN IN THE RAIN

PETERBOROUGH, ONT., June 18, 1914.

In the Fall of 1912, we purchased one of your Climax A mounted machines. We filled twenty-eight silos, doing it with a 13 horsepower steam engine. In one case, we had to elevate it 40 feet. The season was very wet and corn was hard to handle but we had no trouble to elevate even in the rain. Our customers said that they never saw a machine do the work like it. The machine is still making friends and doing first class work. We heartily recommend it to any intending buyers.

HEARD BROS.

NO TROUBLE FILLING HIGHEST SILOS

DELaware, ONT., June 16, 1914.

We have used Climax A machines for the past fifteen years and they have proved to be the best boxes I have ever seen. We use a 14 horse engine and never have any trouble in elevating corn into the highest silo. We fill on an average of 20 silos a year besides cutting a lot of dry fodder each year. I consider you have the best box on the market and when my old box is done, I will have another Climax.

FRED H. EICHENBERGER.

FILLS ON AN AVERAGE OF 35 SILOS

R. R. No. 2, WILTON GROVE, ONT., June 16, 1914.

I bought one of your Climax A machines four years ago and am running it with a 14 horse engine. We have filled on an average of 35 silos besides cutting any amount of dry fodder. I filled one silo 14 x 35 in seven hours and can do so again if they produce the corn. We have other makes of blowers in this vicinity but I would for anything I have seen and would be glad to recommend your machine to any intending purchaser.

WM. MCENTEEER.

40 FEET AND HIGHER

NORVAL, ONT.

I have used several of your Climax A Ensilage Cutters, two mounted and some Standards and they all did fine work. I have filled silos 40 feet high and sometimes have to put it higher. They also work fine in dry hay and straw. I have run these machines with a 12 H. P. engine before I got the heavy engines and had no trouble.

J. L. BUIE.

WORKS WELL IN BOTH CORN AND STRAW

GRAND VALLEY, ONT., June 11, 1914.

Four years ago, we bought one of your Climax A machines. Used 12 H. P. engine until last year, when we used a 15 H. P. Have found it works well in both corn and straw. Filled a 31 x 12 silo in less than 5 hours, cutting medium length.

D. P. MACDONALD,
R. A. DUFFY.

The
Bateman-Wilkinson Co.
Limited

WILKINSON

Toronto, Canada
Established 1868

10 x 30 SILO IN 3 HOURS

BALLEYMORE, ONT., June 16, 1914.

We ran one of your Climax A machines for years and must say that it has given us every satisfaction. A proof of this is, that nine-tenths of the machines sold in this vicinity in the last five years, are Climax machines. Our advice to intending purchasers elsewhere is, buy a Climax. We always used a 14 horse engine and never had occasion to run it up to its full rating. We have filled 10 x 30 silos in 3 hours without any trouble; in fact, can do this and better any old time they give us the corn.

G. A. SMITH.
JAS. ANDERSON.

NEW ONE A CLIMAX, TOO

R. R. No. 1, WILTON GROVE, ONT., June 15, 1914.

I have used a Climax A Ensilage Cutter every season for the last five years and the machine had been in use for four years before I purchased it. Owing to the increase in business, I bought another Climax A last year and must say it is a dandy. I filled over 30 silos last season with a 13 horse engine. I had no trouble whatever. A number of these silos were 40 feet high and over. Would advise anyone buying a box, to get a Climax A machine.

JAS. A. BEATTIE.

NONE OTHER CAN DO SAME WORK WITH LIKE POWER

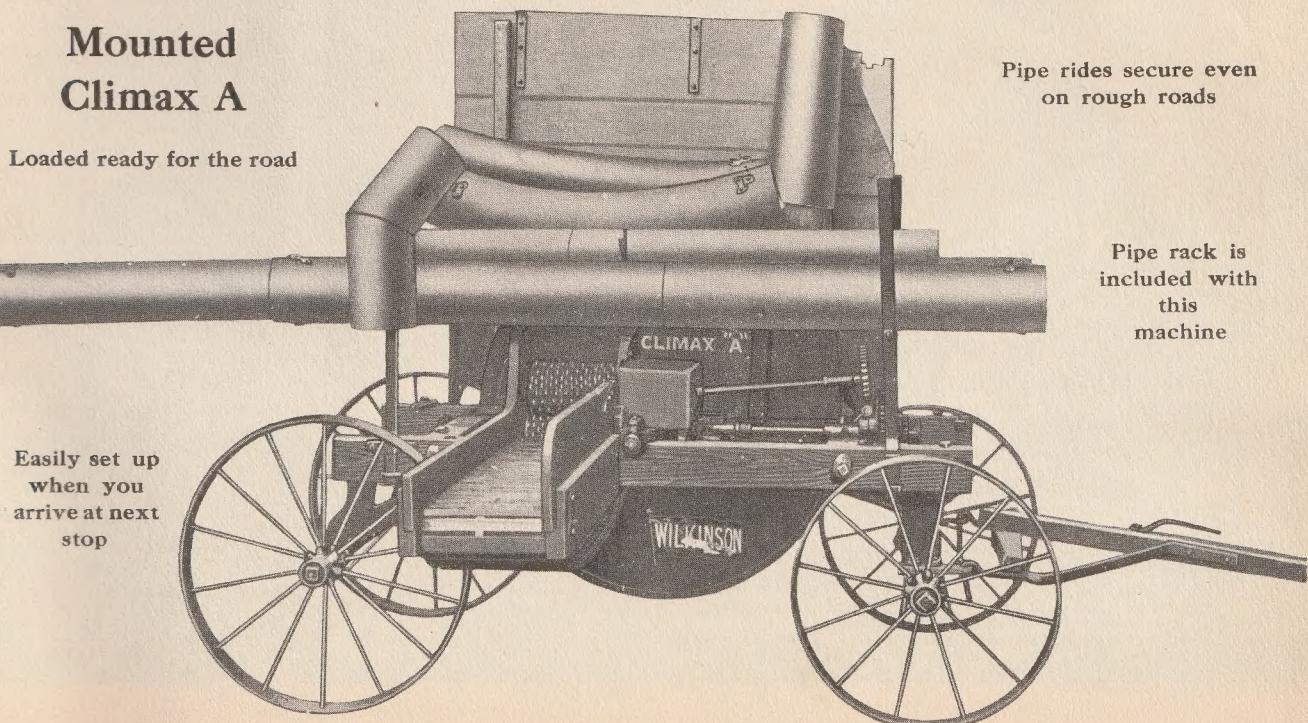
R. R. No. 2, PARKHILL, ONT., June 17, 1914.

It is with pleasure I can recommend your Climax A Ensilage and Straw Cutter. I don't think there is another that with the same power will do the amount of work. I have filled a silo 12 by 21 feet high with a Climax A and a 12 horse engine in five hours. Again with the same box and a 15 horse engine, filled a 12 by 30 in five and a half hours. For dry feed, they can't be beaten. I have used other makes but none can compare with the Climax for speed, convenience, light running and built to last.

FRANK WHITELAW.

Mounted Climax A

Loaded ready for the road



Easily set up
when you
arrive at next
stop

Pipe rides secure even
on rough roads

Pipe rack is
included with
this
machine



WILKINSON Climax

On the left is shown one of the first of these machines cutting ensilage in Brookville, Ontario, September, 1890. Below, a 1912 Climax cutting straw and blowing it through 62 feet of pipe across the barn. When the fan case was opened and the lower part examined, less than the thickness of the little finger of fine cut straw was found in the bottom. Don't forget that this is a combination machine whose principle of operation is so far right that it has not changed in 15 years, and whose construction is so thorough that it will outlast a generation, if properly taken care of.

